

High Voltage Contactors IHV50 Series

- **Hermetically sealed. Operates in explosive/harsh environments without oxidation or contamination of contacts, including long periods of non-operation**
- **8kV isolation between open contacts permits use for high voltage isolation and carry**
- **12, 24 and 48 Vdc coils**
- **Designed accordance to AIAG QS9000**
- **Not position sensitive, can be mounted in any orientation**
- **RoHS compliance**

Typical applications

DC Charging, Solar Inverter, Energy Store Station, Test Equipment
Battery Management System, Electric Forklift, AGV, Rail Transit
Motor Control Circuit Isolation, Circuit Protection and Safety in Industrial Machinery

Approvals

cULus E58304



Main Contact Data

Contact arrangement	1 Form X (SPST-NO-DM)
Switching voltage (Max)	900VDC ¹⁾
Rated current	50A ²⁾
Initial voltage drop	< 60mV (50A after 1 minute)
Operate time max.	25ms
Operate bounce time max.	5ms
Release time, max	10ms
Maximum short circuit current (1/2 cycle 60Hz)	1250A
Mechanical life	1,000,000 cycles

Contact ratings

Load	Cycles
50A, +450VDC, make / break	5,000
50A, +750VDC ¹⁾ , make / break	3,000
50A, -450VDC, make / break	1,000
500A, +450VDC, break only	10
300A, make only	26

1) Please contact TE engineers for above 450VDC high voltage switching application.

2) Continuous current 50A (Current depends upon conductor size) and short term current 100A for 3 minutes (at +40°C).

Coil versions, DC coil

Coil code	Nominal Voltage VDC	Operate Voltage VDC	Maximum Voltage VDC	Release Voltage VDC	Coil resistance Ω	Coil Power W
12	12	8	16	1.2	26	5.5
24	24	16	28	2.4	96	6
48	48	33	52	4.8	392	6

All figures are given for coil without pre-energization, at ambient temperature +20°C

Insulation Data

Dielectric withstand voltage (leakage current <1mA)	
between open contacts	5,600Vrms / 8,000Vdc
between contact and coil	2,000Vrms / 4,000Vdc
Initial insulation resistance @ 500VDC	
between open contacts	> $1 \times 10^8 \Omega$
between contact and coil	> $1 \times 10^8 \Omega$

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter

Ambient temperature	-40°C to 85°C
DC coil	
Vibration resistance (functional),	Sine, 55 – 2000Hz, 15G
Shock resistance (functional)	11ms 1/2 Sine, Peak 20G
Terminal type	Screw for contact, wire for coil
Weight	About 190g
Packaging/unit	60pcs/carton

Notes:

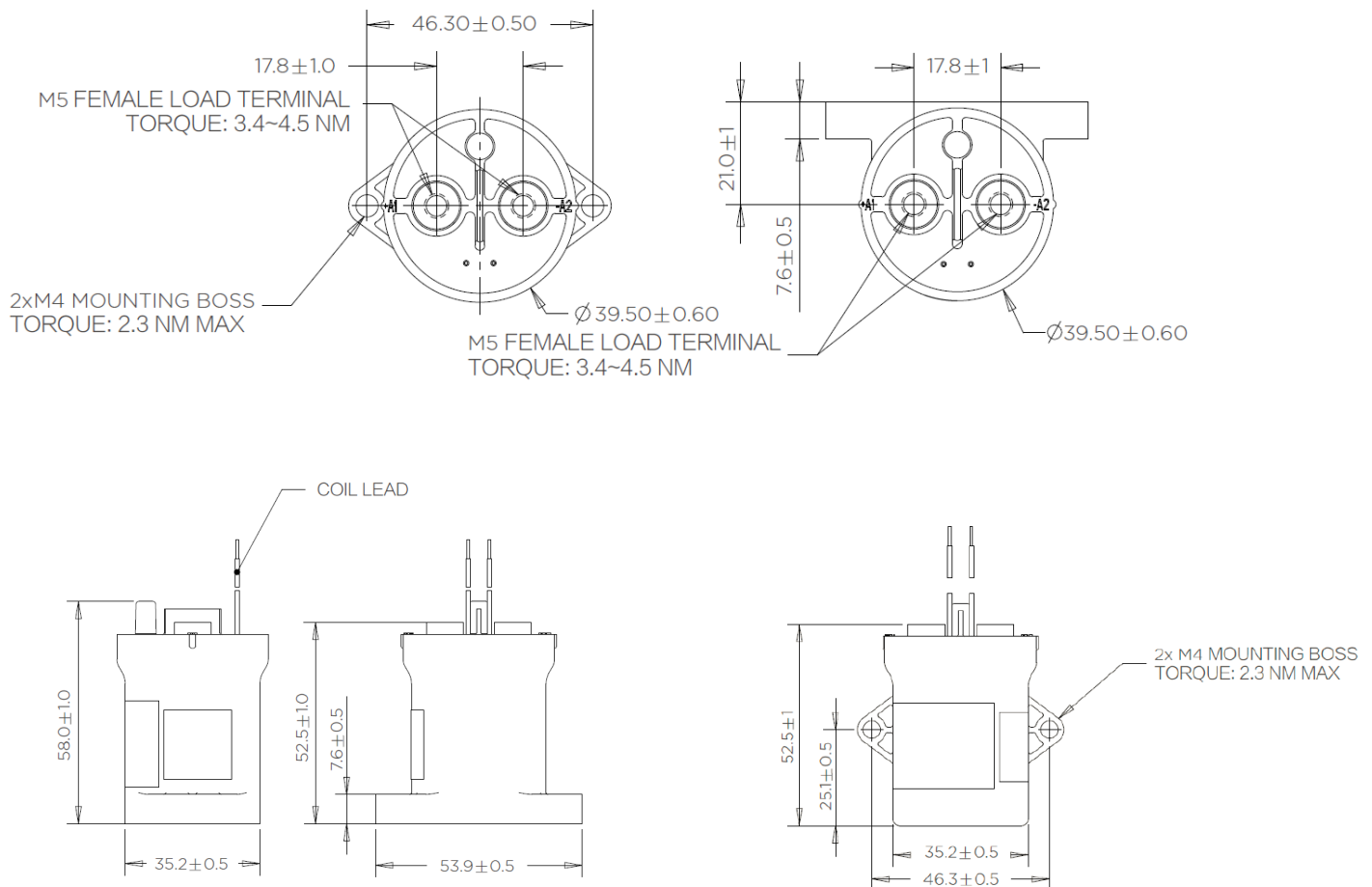
1. Compact epoxy-sealed resin enclosure occupies only about 4 in³ (65.5 cm³)
2. Robust integral mounting plate on either bottom or side of enclosure accepts two M4 screws
3. Inert gas filled contact chamber
4. Flying leads for coil connections
5. Load terminals threaded for M5 bolts (not included)

High Voltage Contactors IHV50 Series (Continued)

Dimensions

Bottom mounting type

Side mounting type



Tolerances are shown for reference purposes only

High Voltage Contactors IHV50 Series (Continued)

Product code structure

IHV50 A 4 A N G XX

Product series

IHV50 = IHV50 Contactor

Contact form

A = 1 Normally Open

Coil Voltage

4 = 12VDC

5 = 24VDC

6 = 48VDC

Coil Wire Length

A = 15.3 inch / 390mm

Coil Terminal Connection

N = None

Mounting & Power Terminal

G = Bottom Mount & Female 10mm X M5 Threaded Terminal

H = Side Mount & Female 10mm X M5 Threaded Terminal

Customer Special Designator

XX = 2 digits or Letters Specified by Manufacturer

Product code	Contact form	Mounting position	Coil	Part number
IHV50A4ANG	Normally Open	Bottom	12VDC	2071407-1
IHV50A5ANG			24VDC	2071407-2
IHV50A6ANG			48VDC	2071407-3
IHV50A4ANH		Side	12VDC	1-2071407-1
IHV50A5ANH			24VDC	1-2071407-2
IHV50A6ANH			48VDC	1-2071407-3